

## METHOD FOR ETCHING AT LEAST ONE ION TRACK TO A PORE IN A MEMBR... Page 1 of 2

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**ET title:** WO0220877A1: METHOD FOR ETCHING AT LEAST ONE ION TRACK TO A PORE IN A MEMBRANE AND ELECTROLYTIC CELL FOR PREPARING SAID MEMBRANE[German][French]

**Derwent Title:** Process for etching ion track to membrane, used as biosensor or dosing system involves adding etching solution to electrolytic cell in chamber, adding stopping solution, applying voltage, and monitoring electrical current during etching [Derwent Record]

**Courtesy:** WO World Intellectual Property Organization (WIPO)  
**Kind:** A1 INTERNATIONAL APPLICATION PUBLISHED WITH INTERNATIONAL SEARCH REPORT

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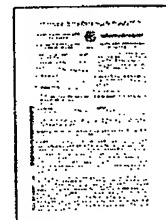
**Application Number:** WO2001EP0009911

**IPC Code:** Advanced: [B01D 67/00](#); [C25F 3/02](#);  
 Core: [C25F 3/00](#); [more...](#)  
 IPC-7: [B01D 67/00](#); [B01D 69/02](#); [B01D 69/14](#); [C25F 3/02](#);

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**Abstract:** A membrane consisting of dielectric material such as an organic polymer, separates two chambers of an electrolytic cell from each other. The membrane is produced using an etching solution which is provided in one of the chambers. Said etching solution contains active etching ions which etch the organic polymer. The other chamber contains a solution which does not have an etching action. An electrical field is generated through the membrane with an electrode that is dipped into the respective electrolytes and a voltage source connecting the two electrodes. The etching process makes its way along the ion tracks on one side, through the membrane and first produces one funnel-shaped pore per ion track. Immediately prior to the breakthrough, the ions which do not have an etching action begin to penetrate the still existent thin layer with fine pores - the active layer - and to displace the ions with an etching action at the exit point. An intensified electric current, driven by the adjacent field, is established. The etching process on the floor of the pore shifts sideways according to the concentration of etching ions still present. The process can be stopped by deactivating the field and washing the membrane and the sole size, i.e. the active layer size, adjusted. A membrane produced in this



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way can be operated as an electrochemical valve and can be used with one or more pores as a sensor or with many pores to control concentration. [German] [French]

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INPAT: O  
Legal Status:

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Designated

JP US, European patent: AT BE CH CY DE DK ES FI FR GB GR IE

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IT LU MC NL PT SE TR

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Patentansprüche:

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Description


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+ Verfahren zum Ätzen mindestens einer Ionenspur zu einer  
Pore in einer Membrane und elektrolytische Zelle zur  
Präparierung einer solchen

Die Erfindung betrifft ein Verfahren zum Ätzen mindestens einer  
Ionenspur zu einer Pore in einer Membrane und eine elektrolytische  
Zelle sowohl zum Präparierung einer Folie zur geeigneten  
Membrane als auch zum Einsatz der Folie in einem Meßoder  
Kontrollsystem.

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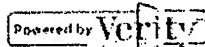
PDF	Patent	Pub.Date	Inventor	Assignee	Title
	US7371517	2008-05-13	Evans; Kenneth M.	XY, Inc.	High purity X-chromosome bearing and Y- chromosome bearing populations of spermatozoa

Other Abstract  
Info:

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